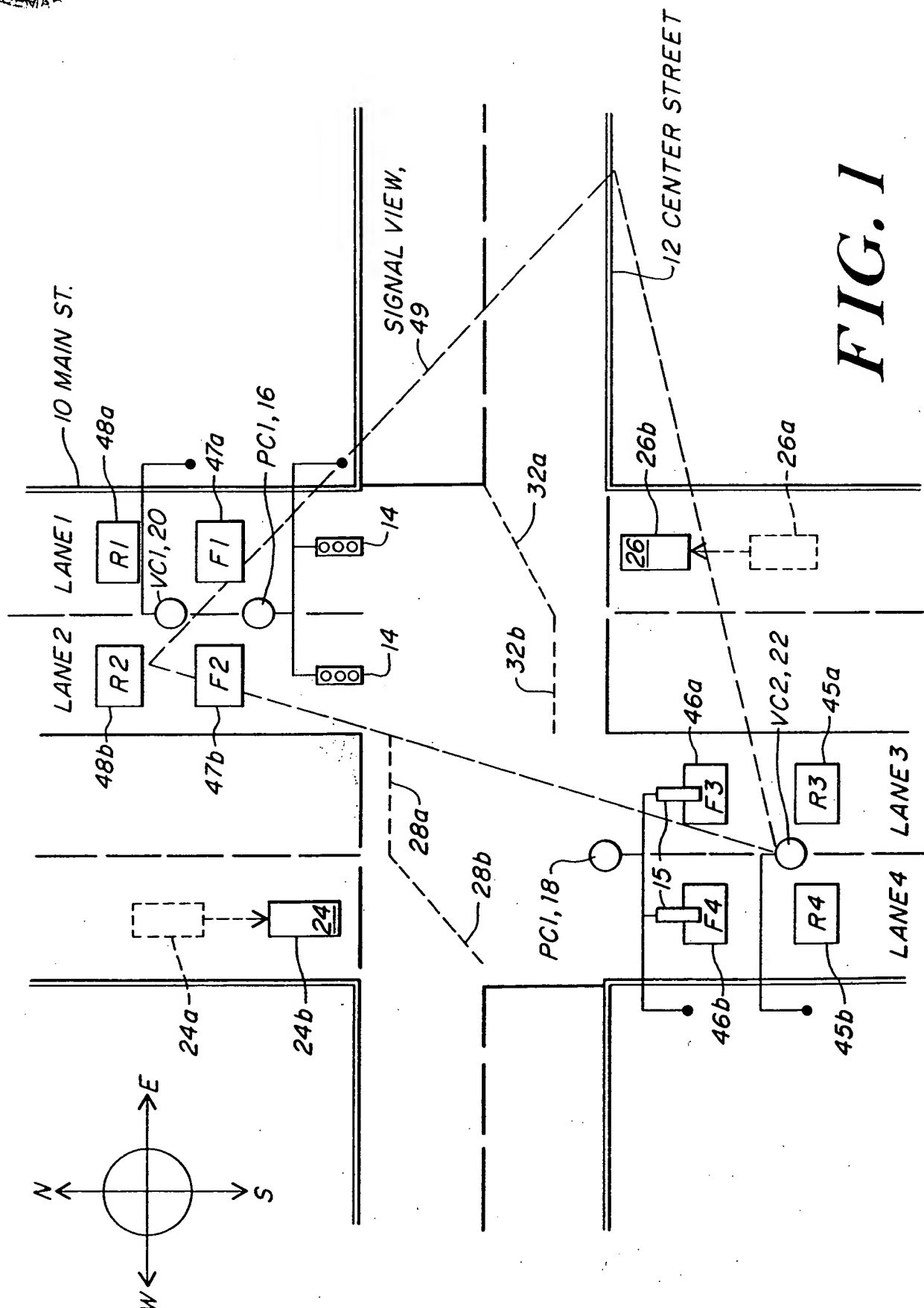
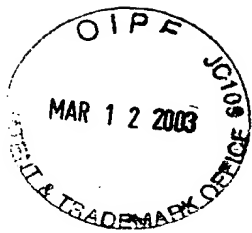


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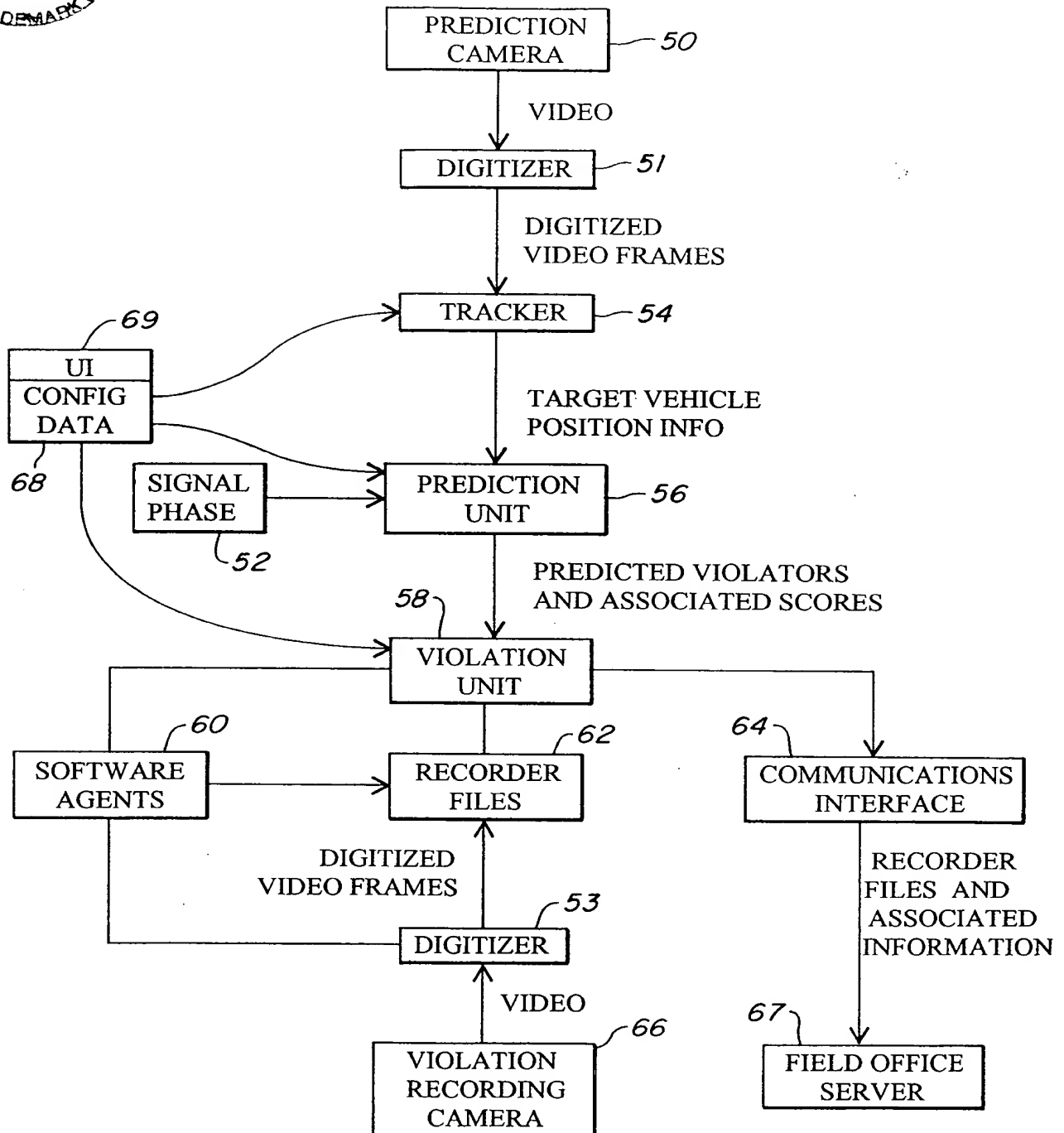
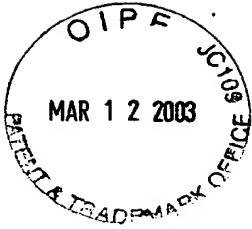


FIG. 2



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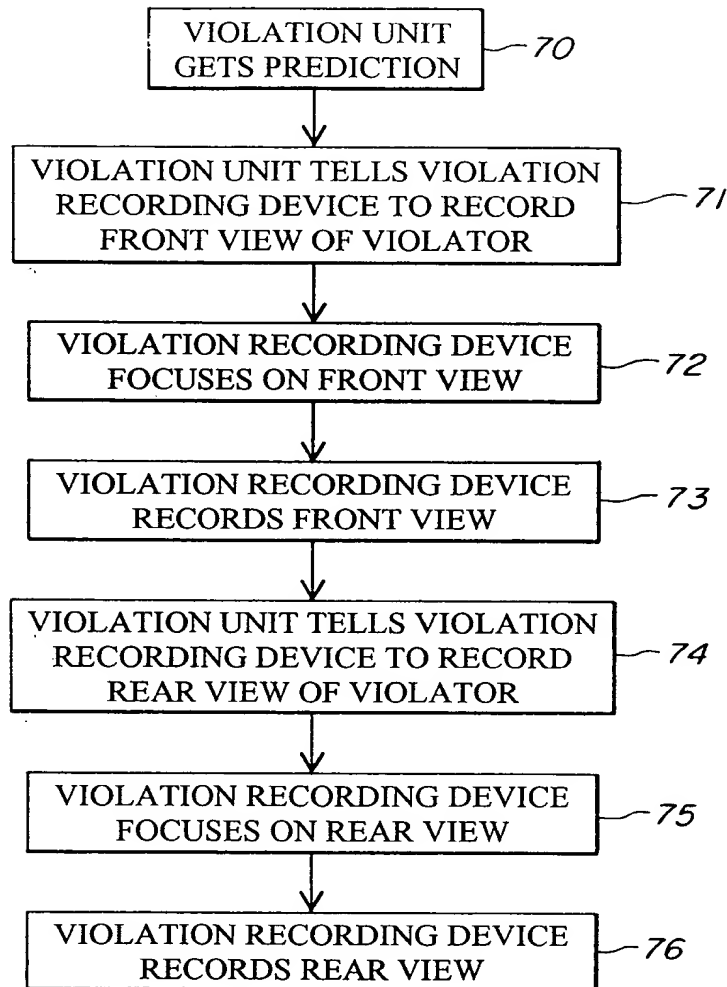


FIG. 3



Title: TRAFFIC LIGHT VIOLATION
PREDICTION AND RECORDING SYSTEM
Inventors: Michael T. Glier, et al.
Appl. No.: 09/444,084
Docket No.: NEST-007XX

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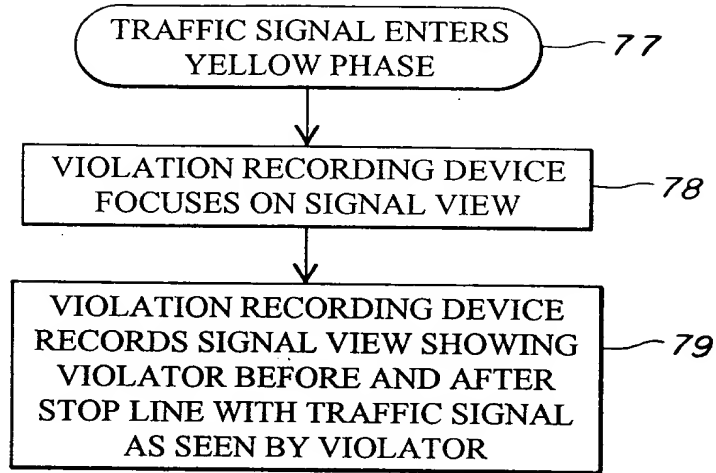


FIG. 4



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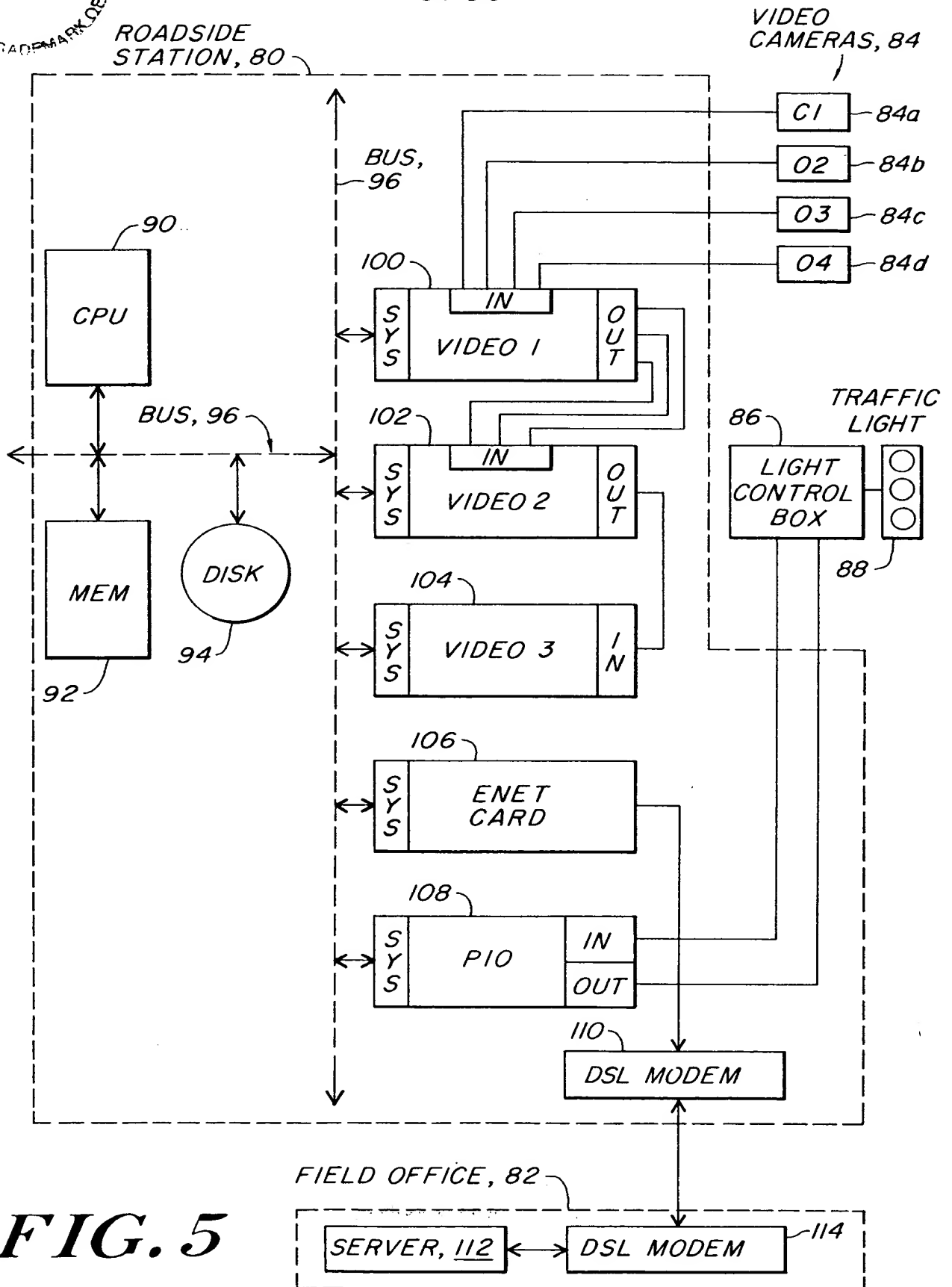


FIG. 5

```

graph TD
    126([Prediction Unit (PU)]) --> 128[SetupPredict]
    128 --> 130{More Frames?}
    130 -- No --> 132([End])
    130 -- Yes --> 134[PredictNewFrame]
    134 --> 136{More Targets?}
    136 -- Yes --> 140[PredictTarget]
    140 --> 136
    136 -- No --> 132
  
```

FIG. 6



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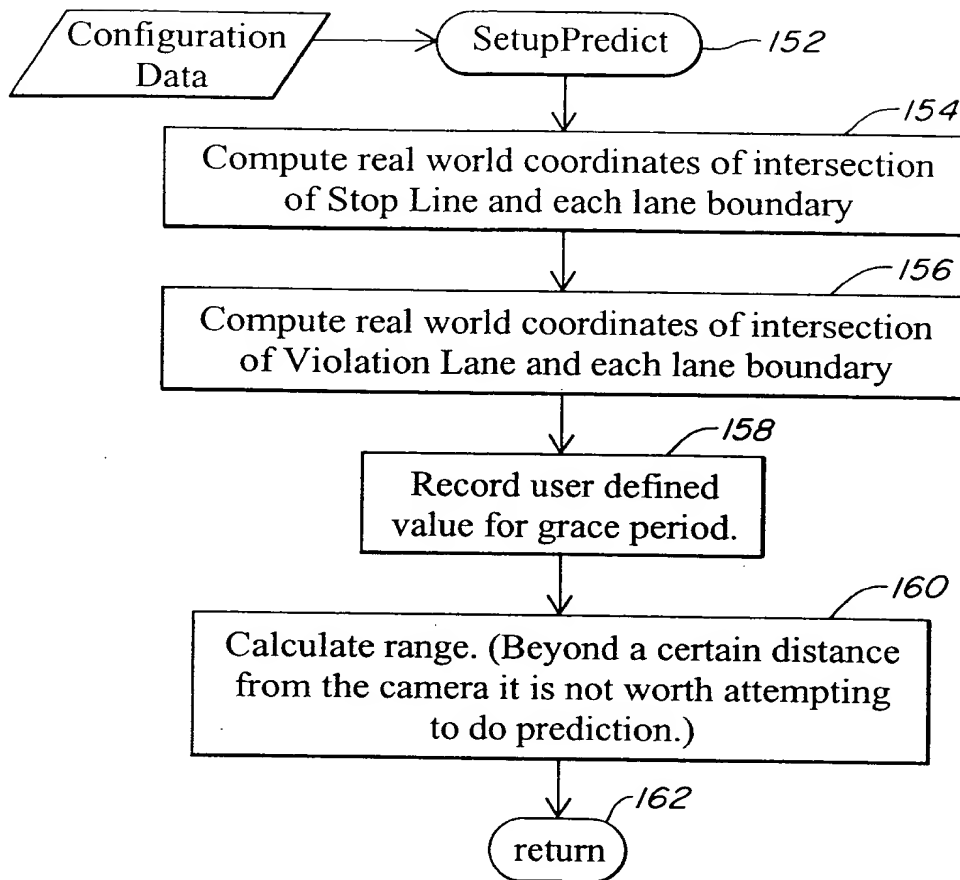


FIG. 7



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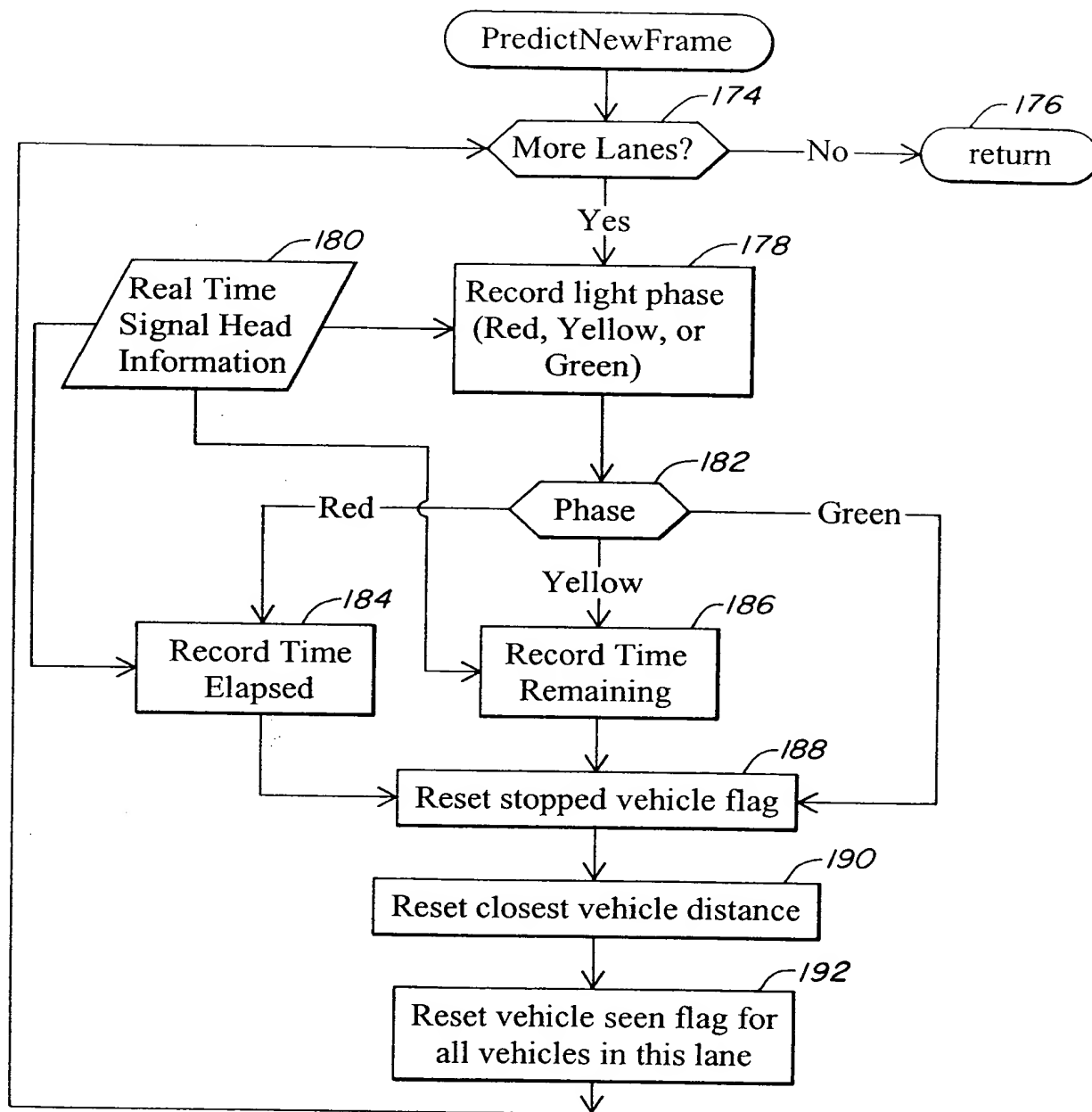


FIG. 8



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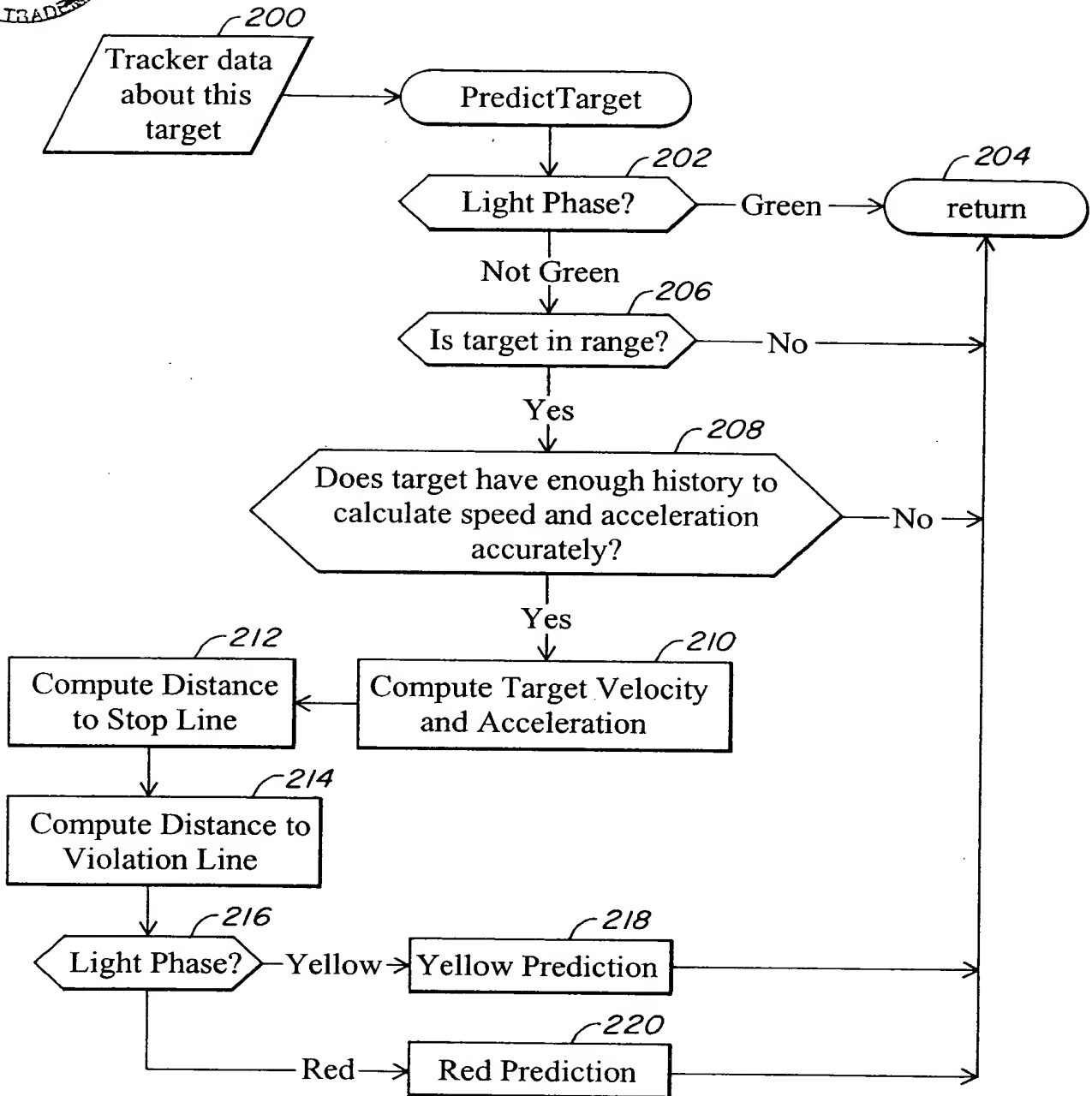


FIG. 9



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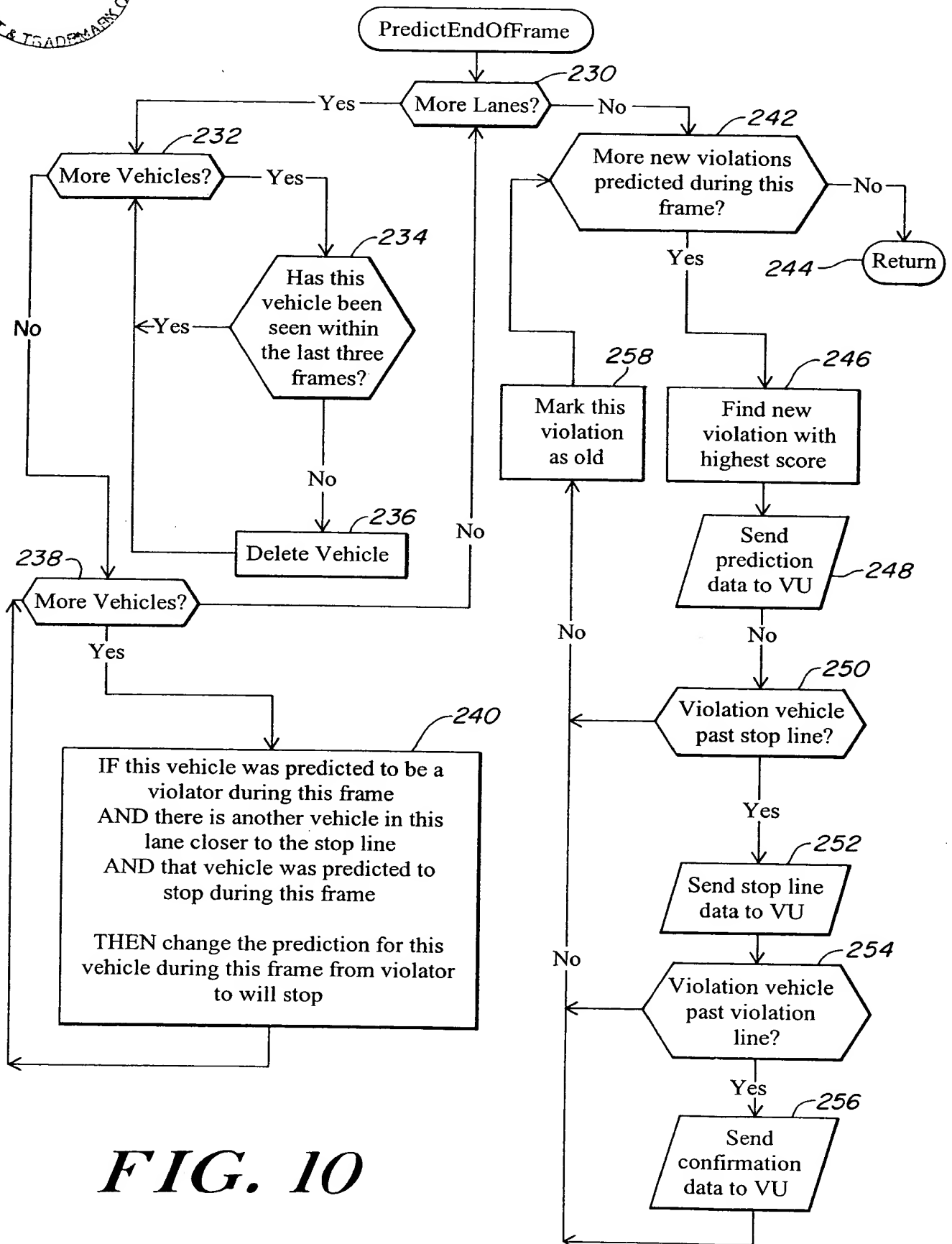


FIG. 10



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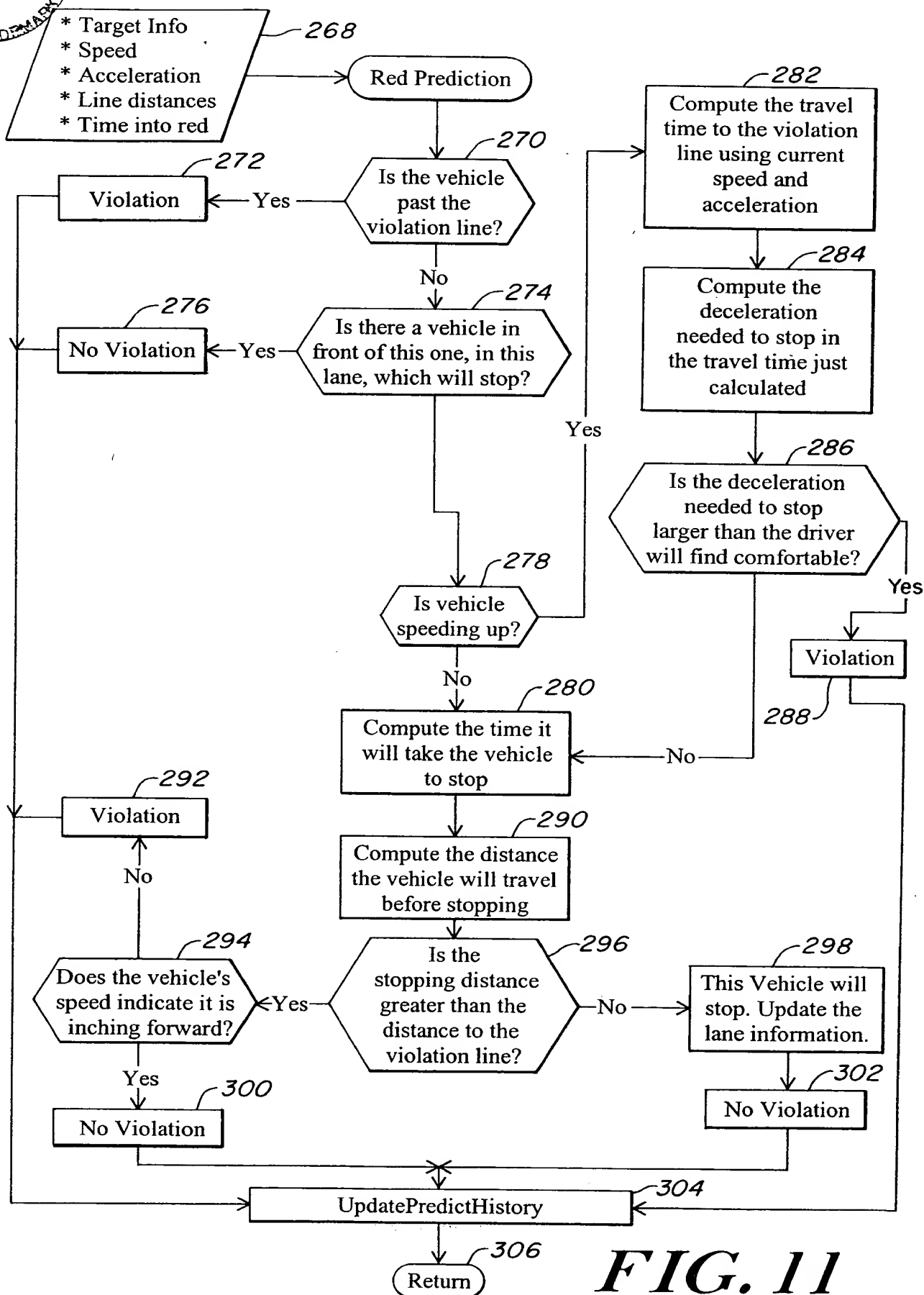


FIG. 11

TO
→ SHEET
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FIG. 12
(PART I)



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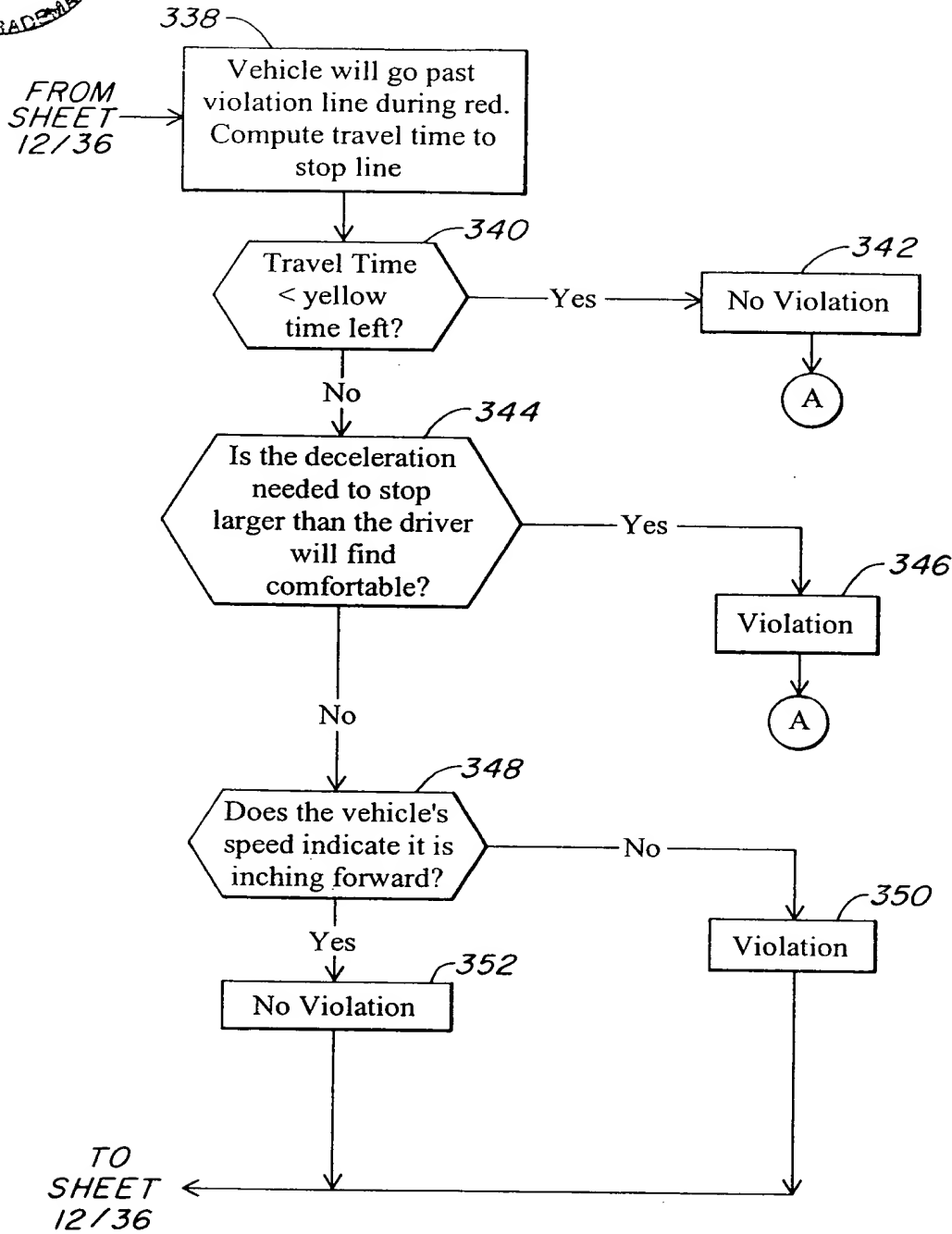
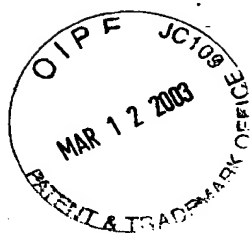


FIG. 12
(PART II)



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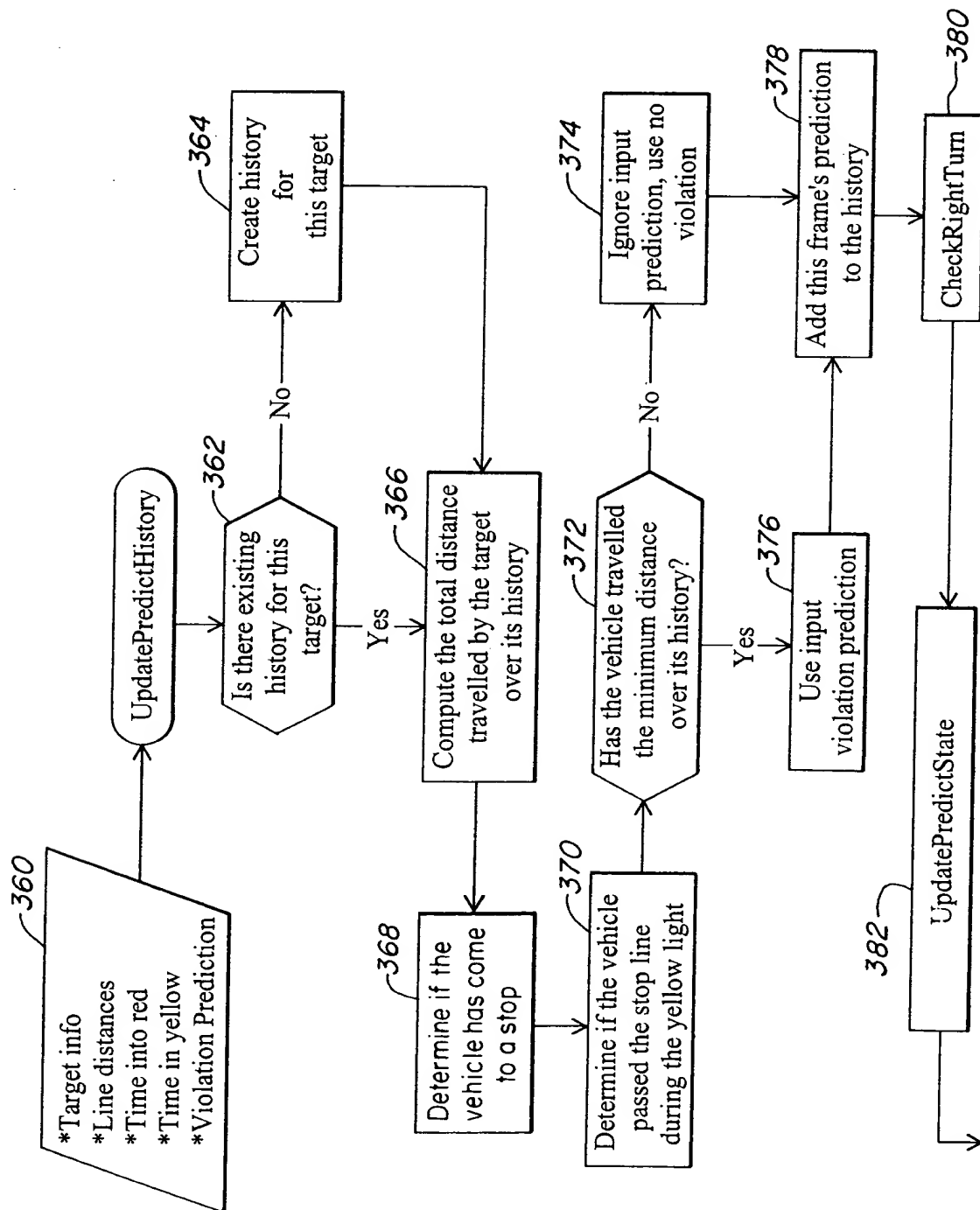


FIG. 13
(PART I)

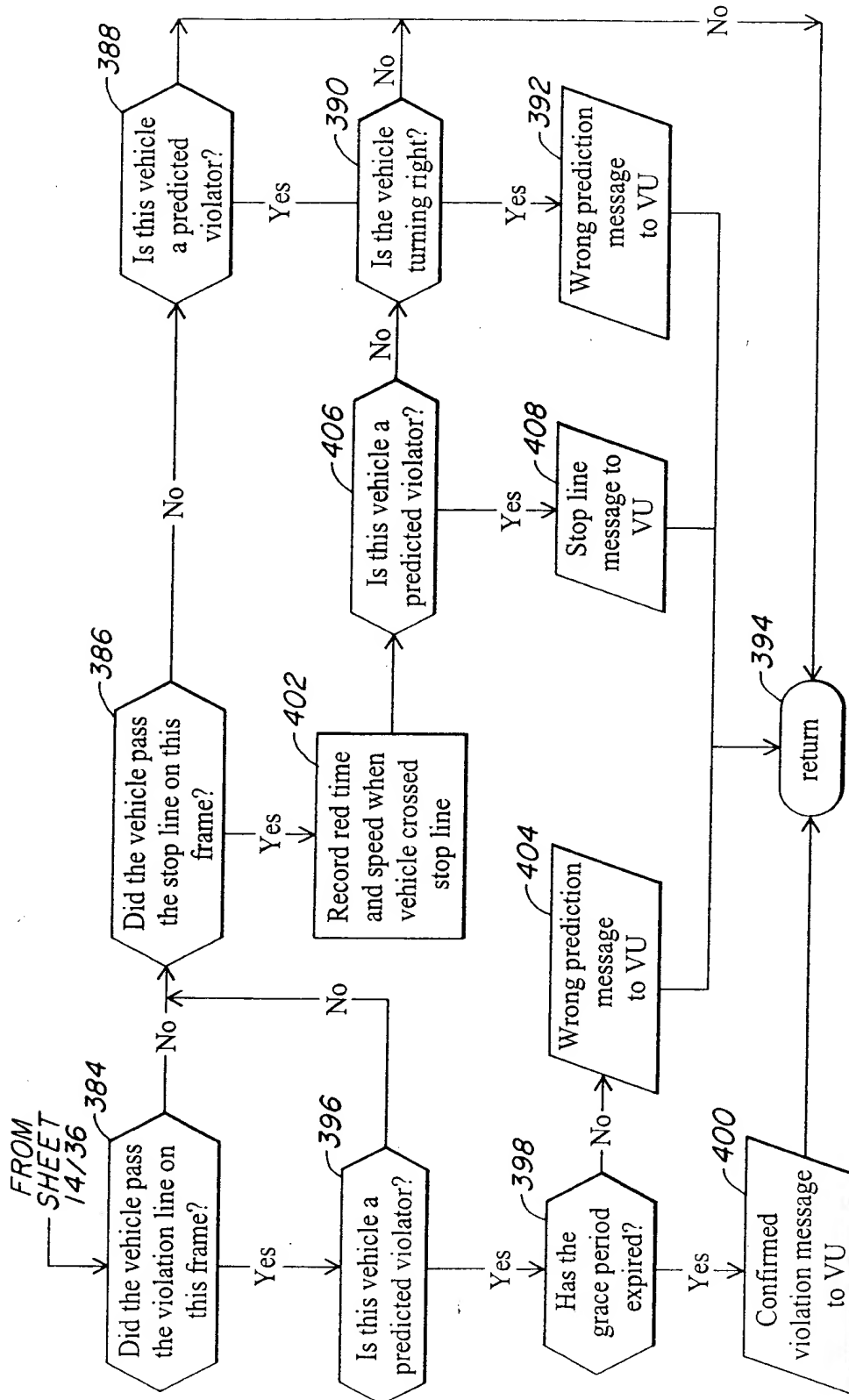
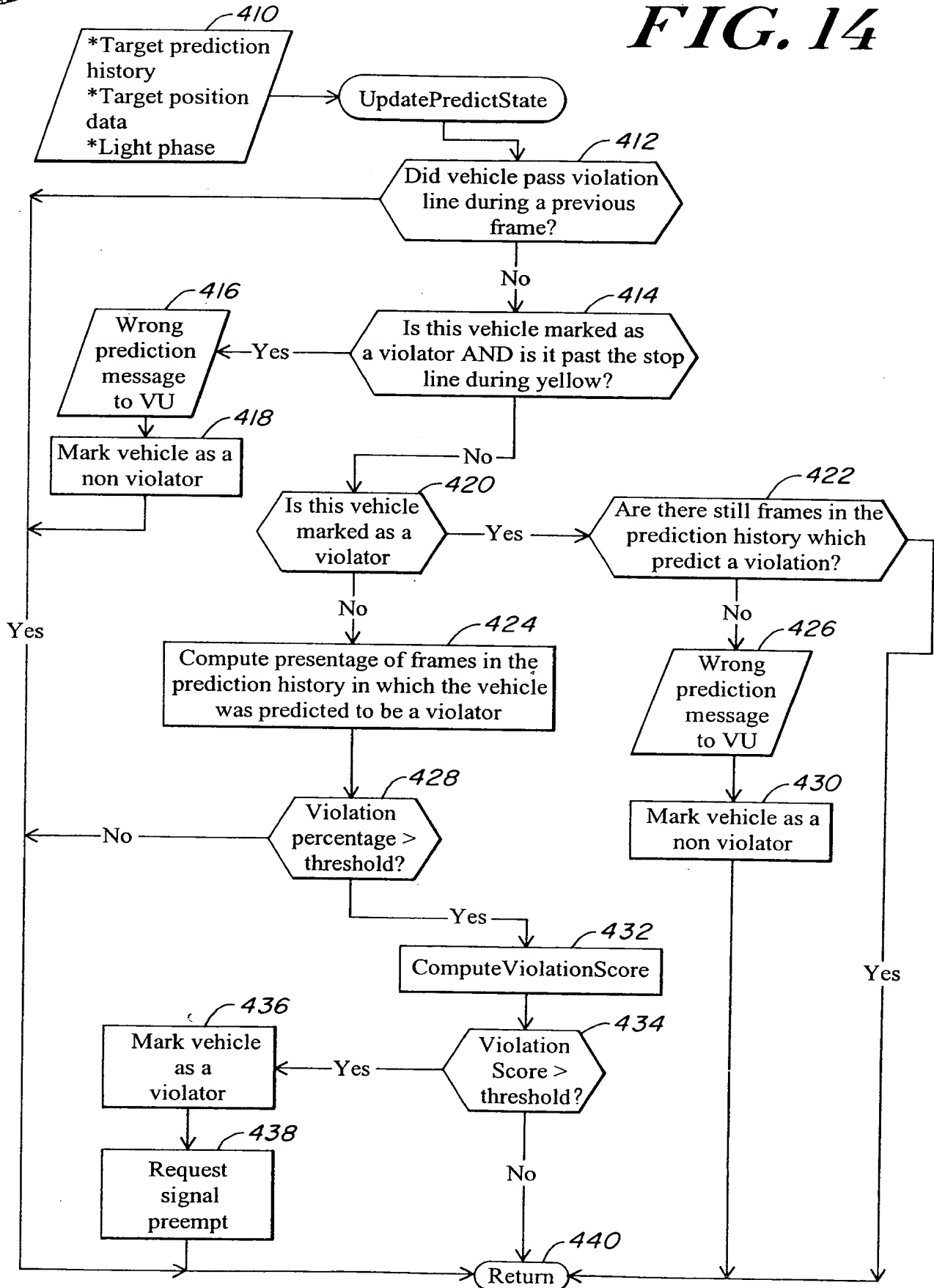


FIG. 13
(PART II)



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FIG. 14





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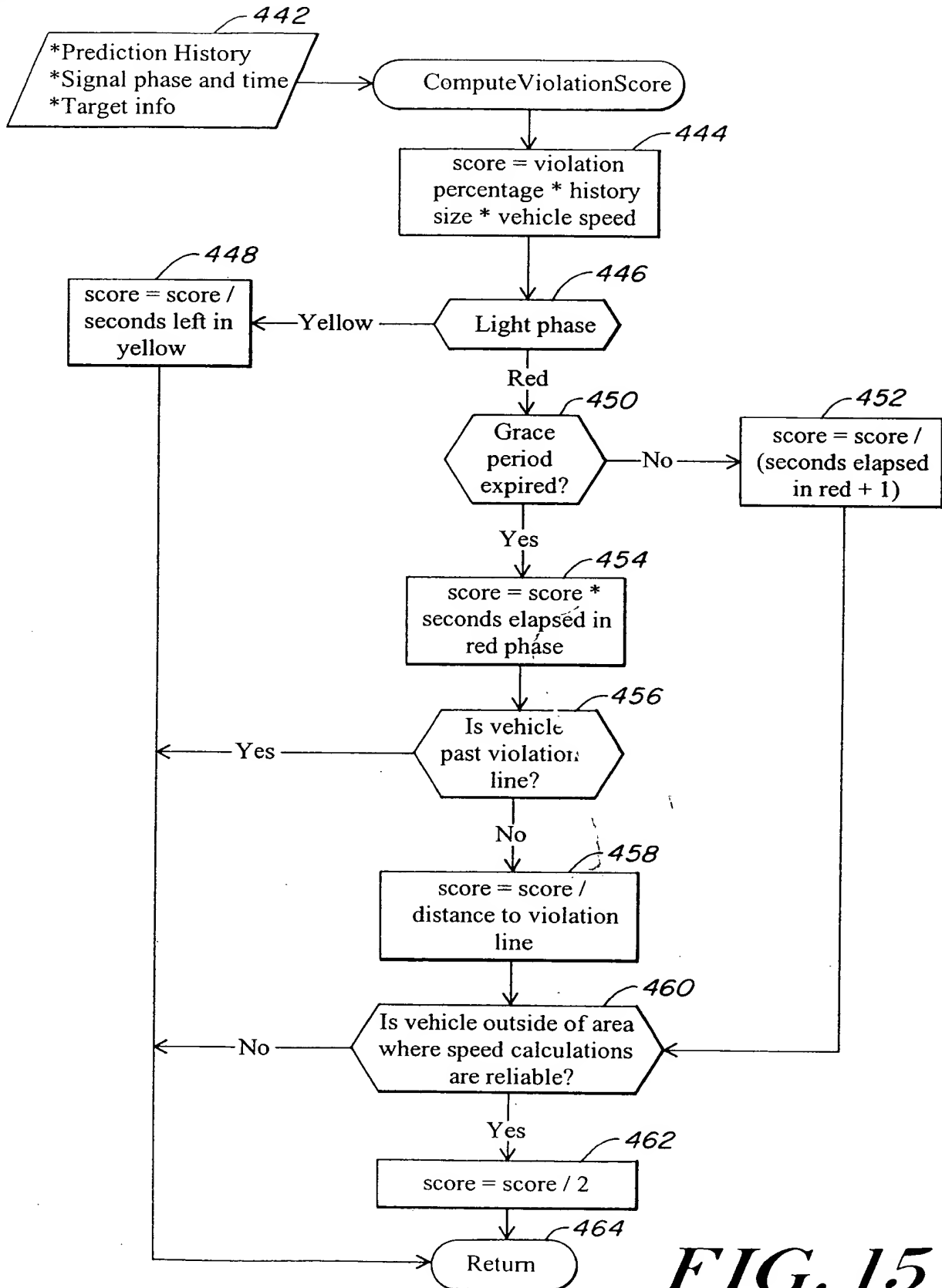


FIG. 15



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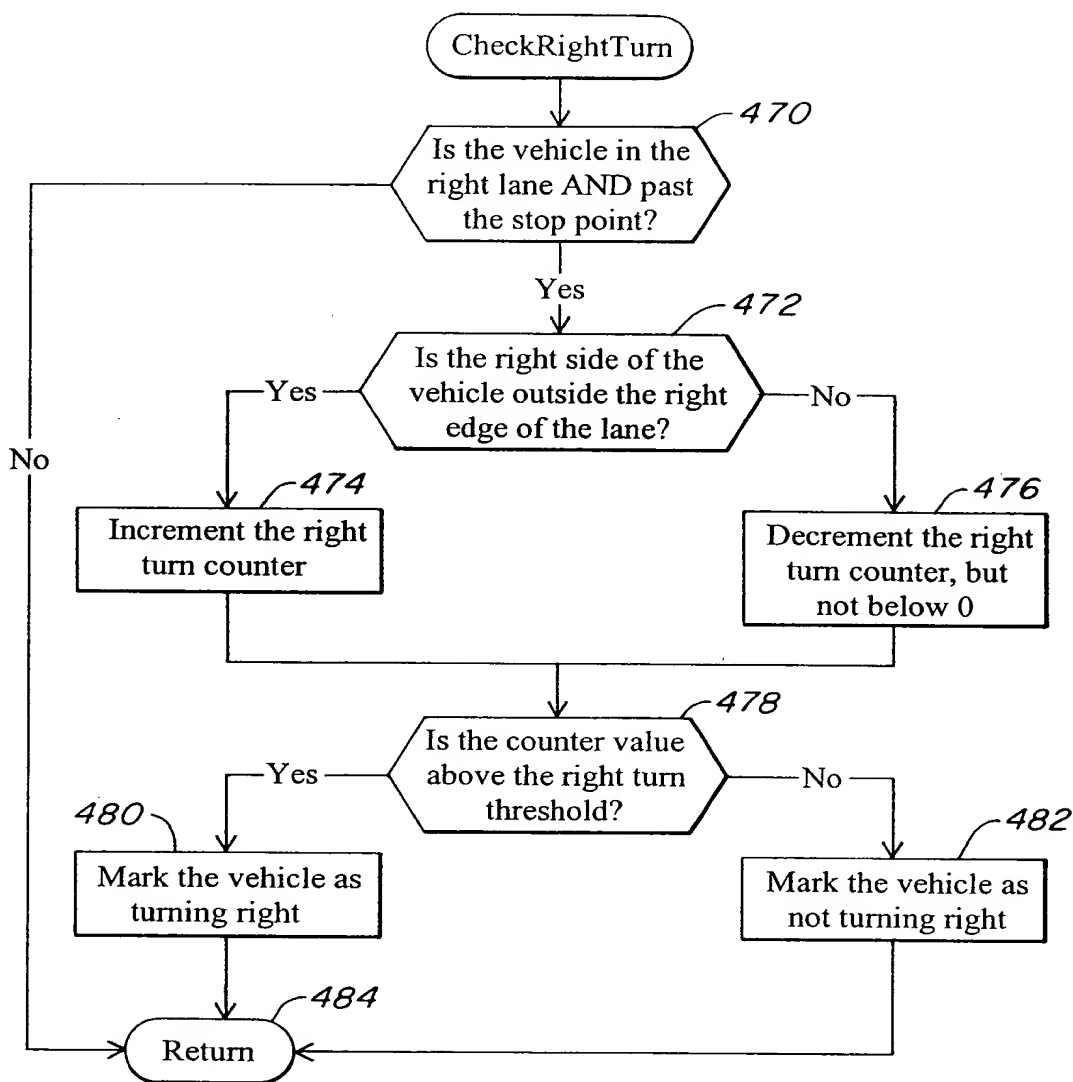


FIG. 16



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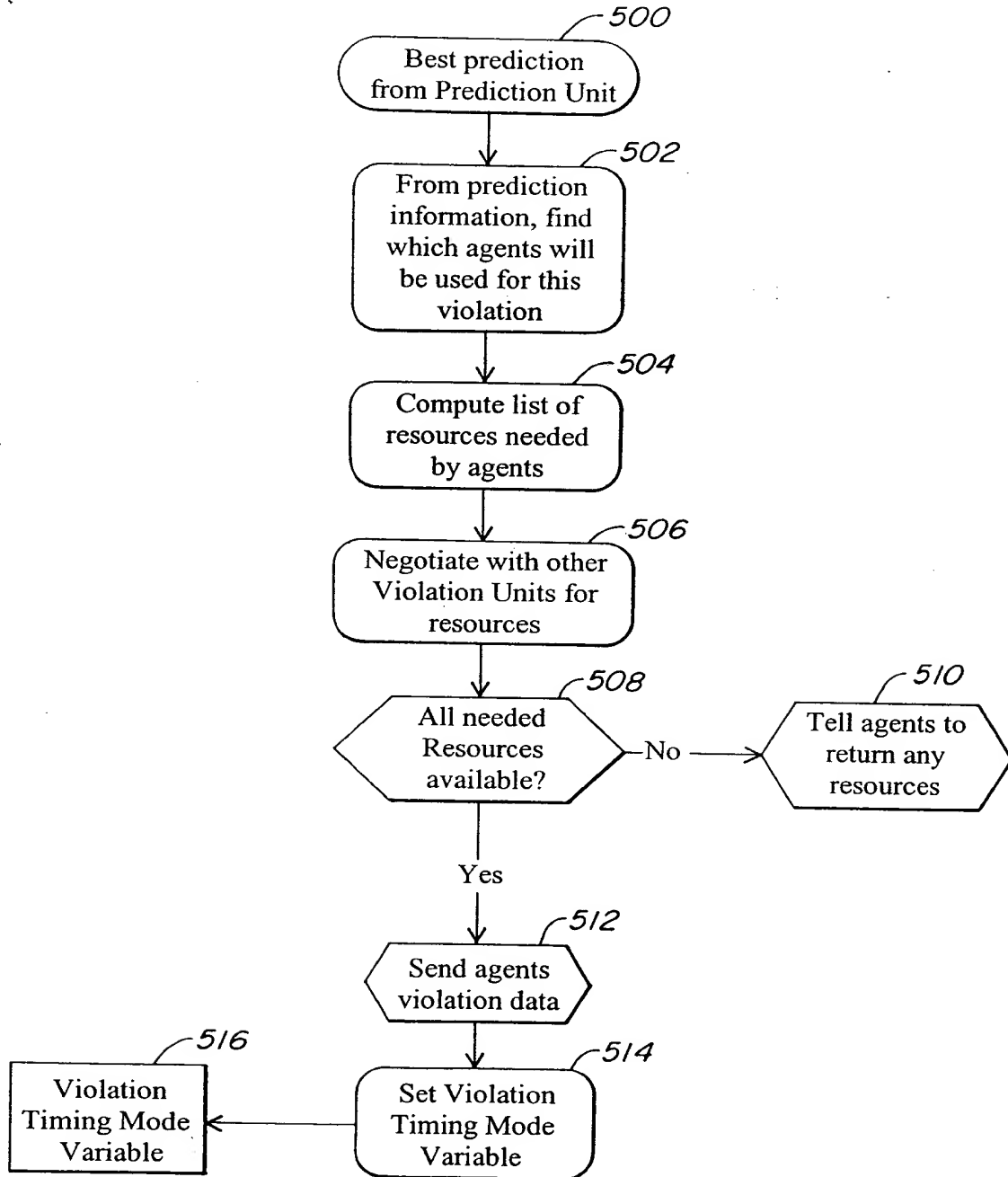
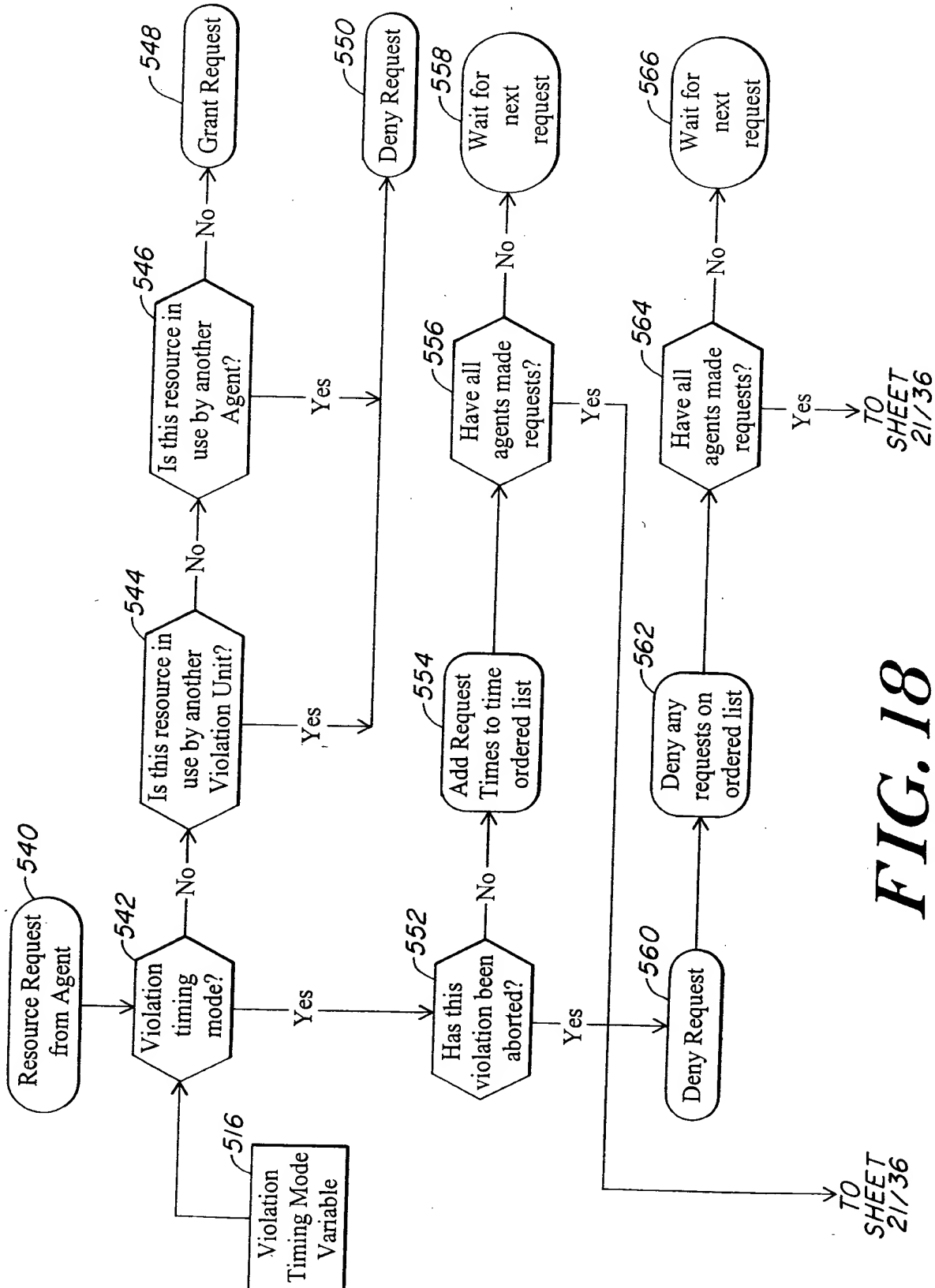


FIG. 17



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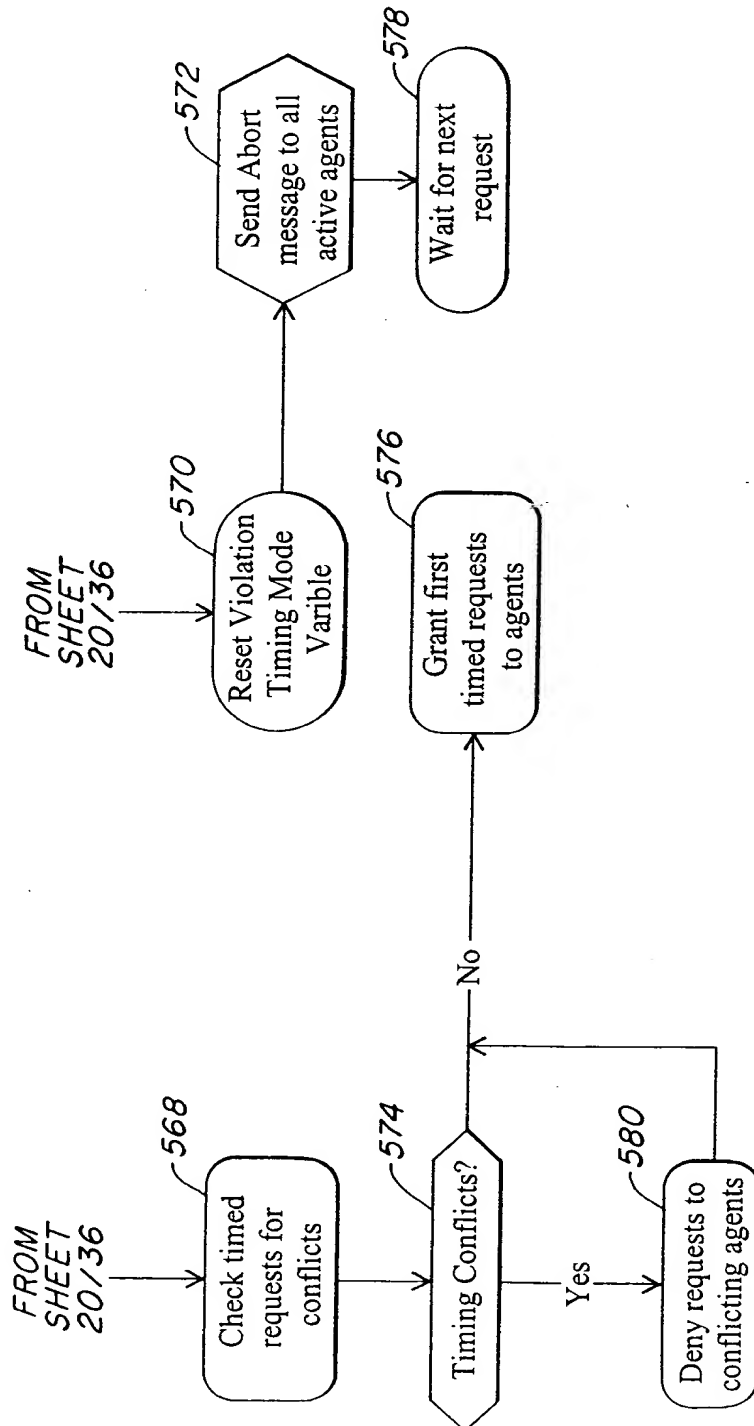


FIG. 18
(PART II)



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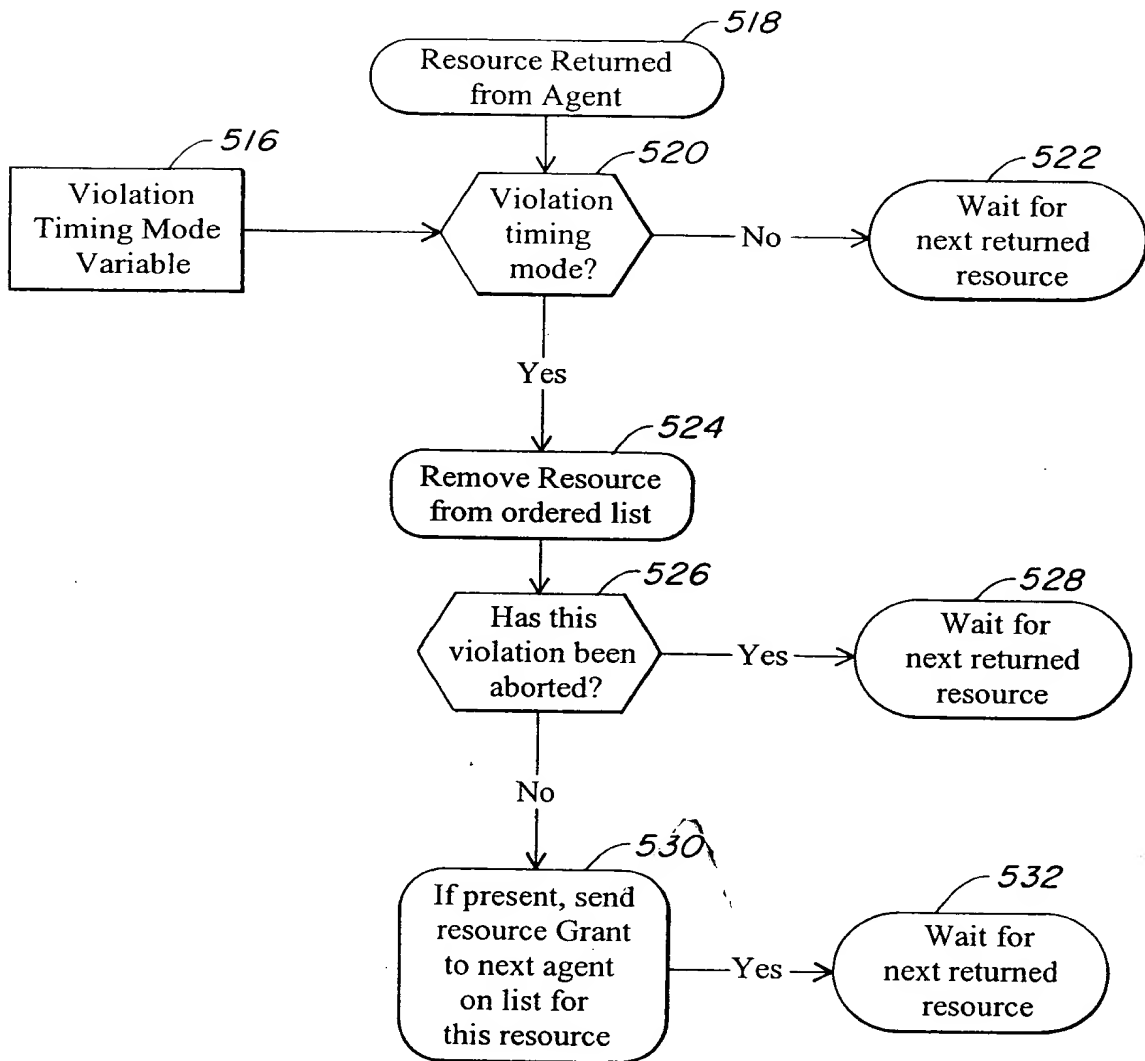


FIG. 19



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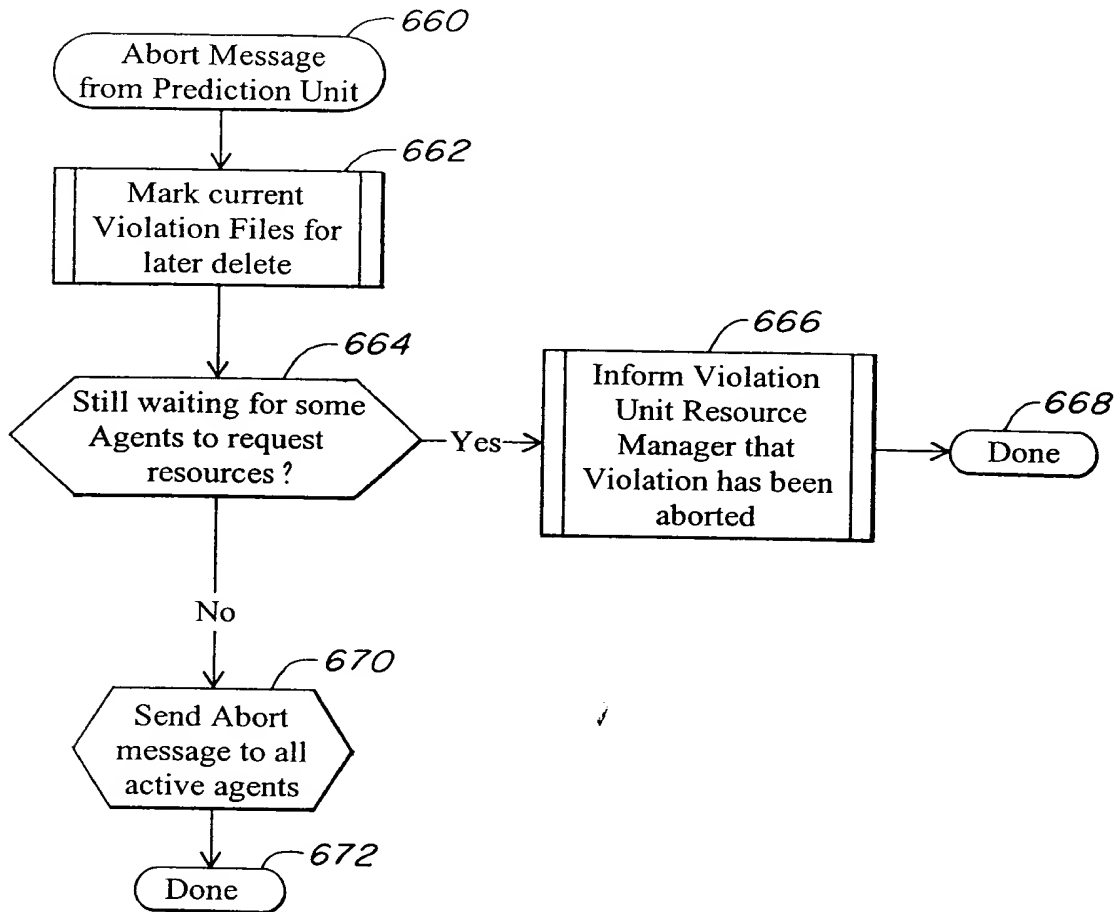


FIG. 20



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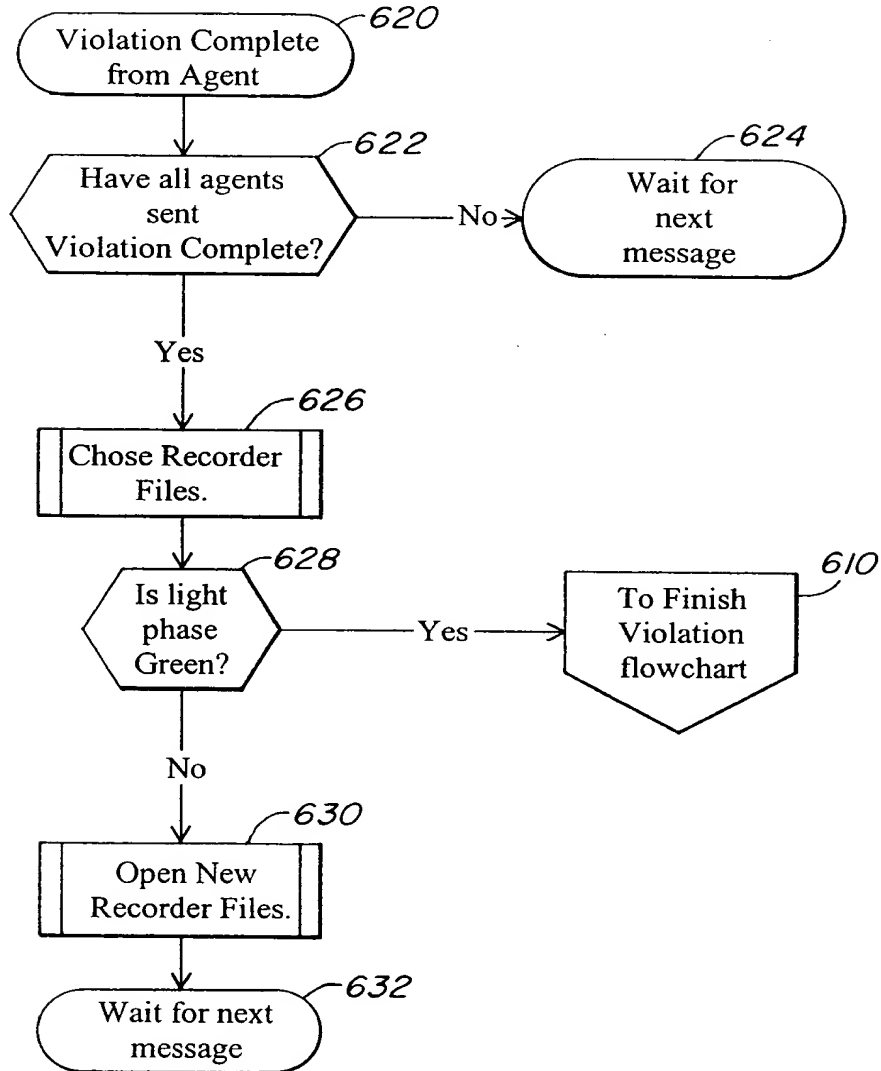


FIG. 22



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FIG. 21

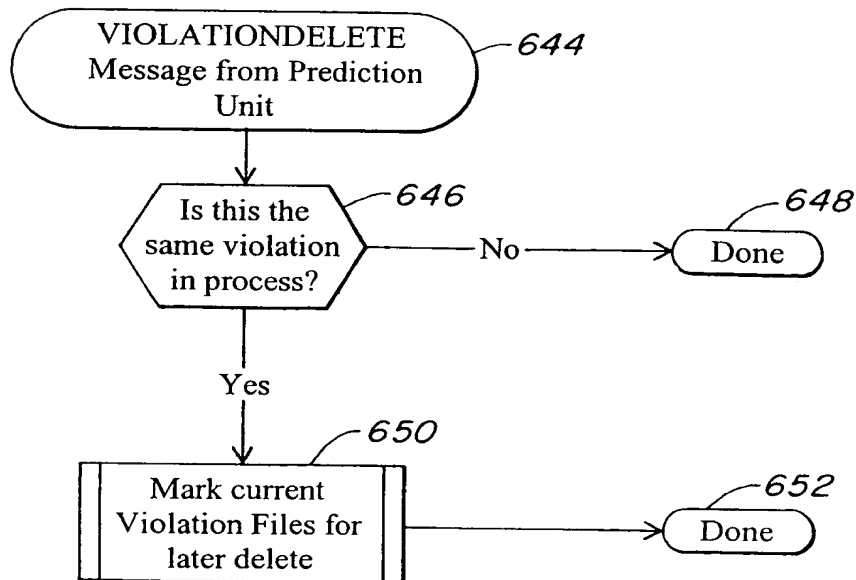
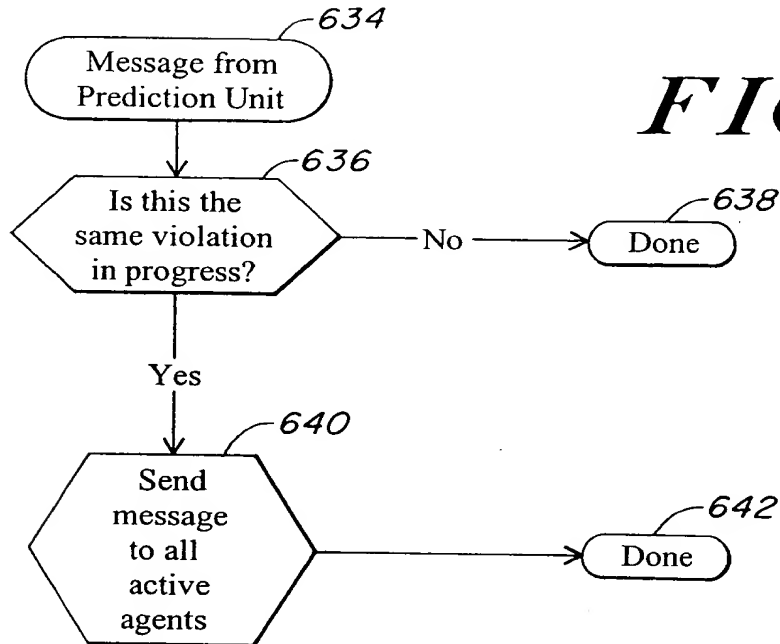


FIG. 23

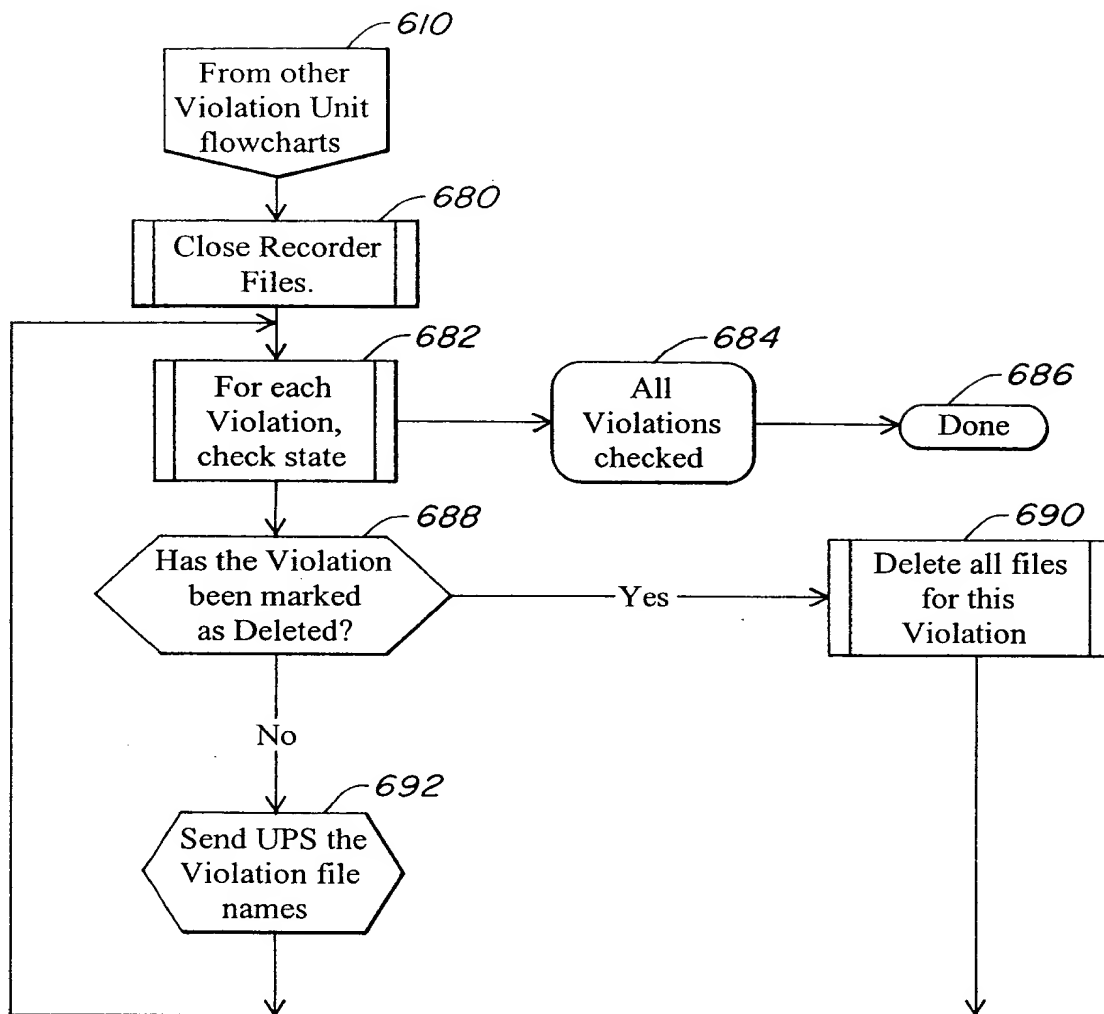


FIG. 24



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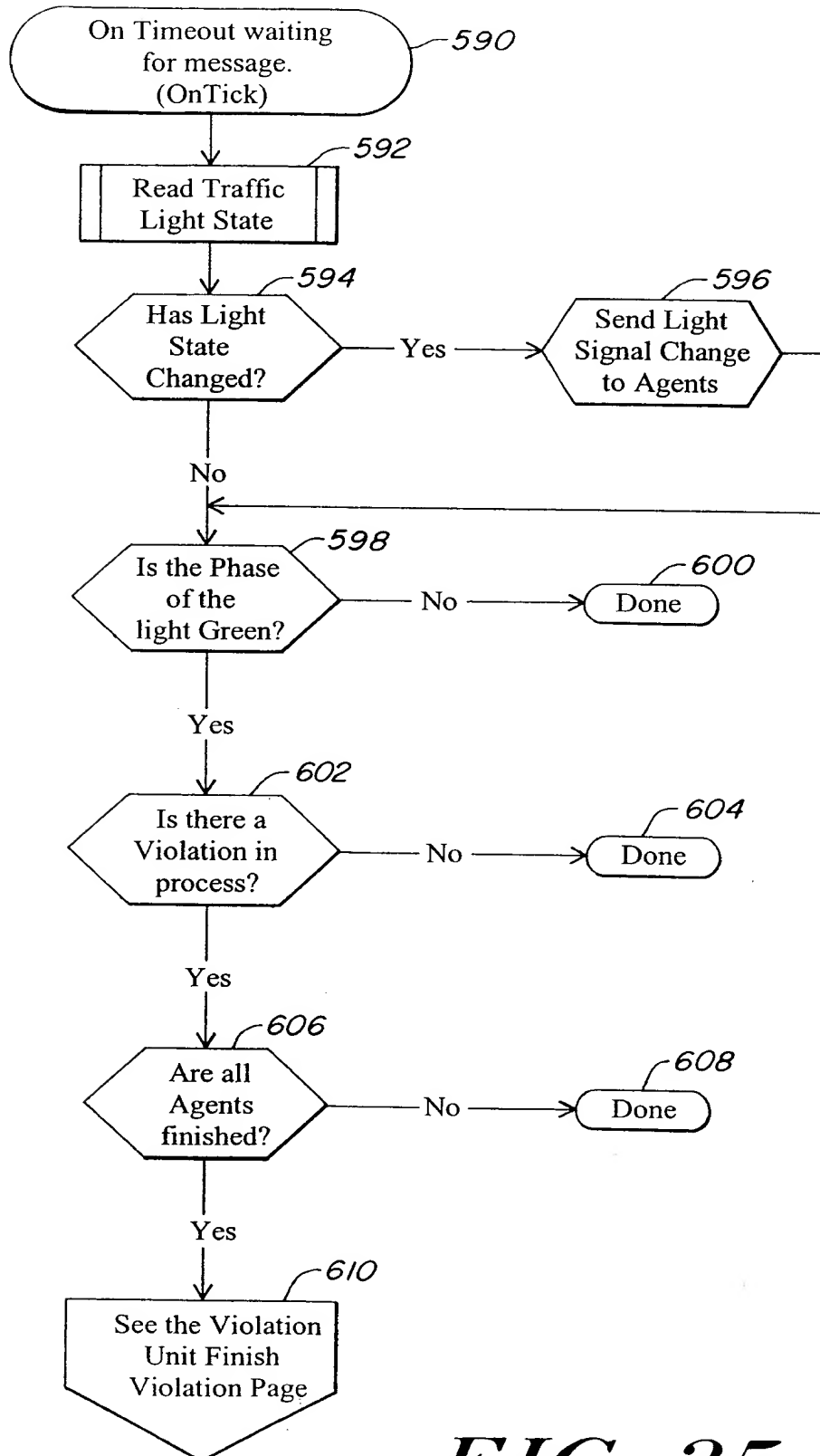


FIG. 25



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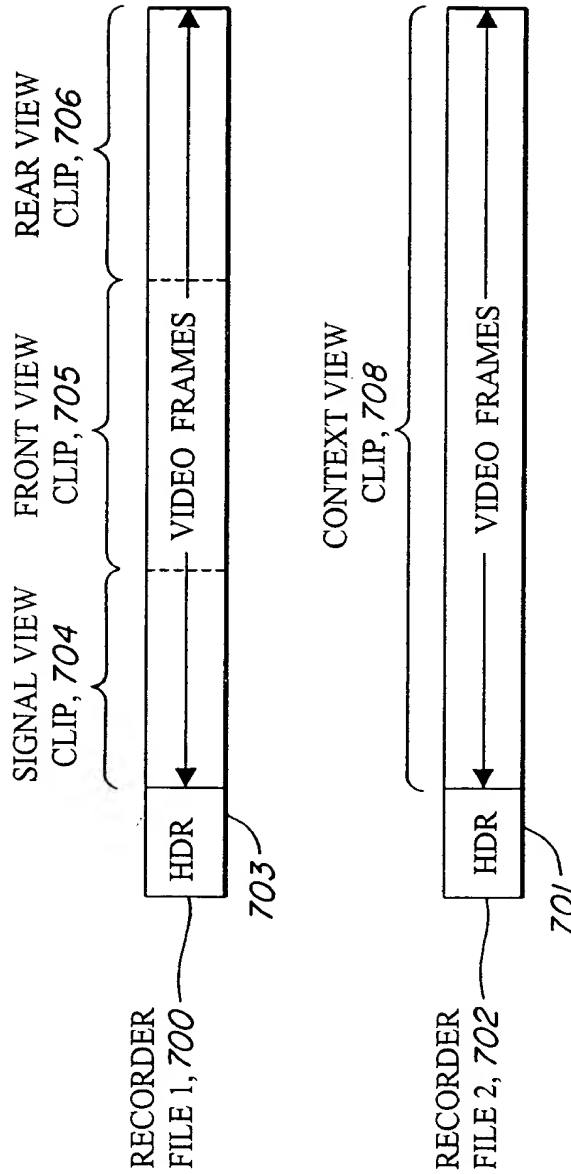
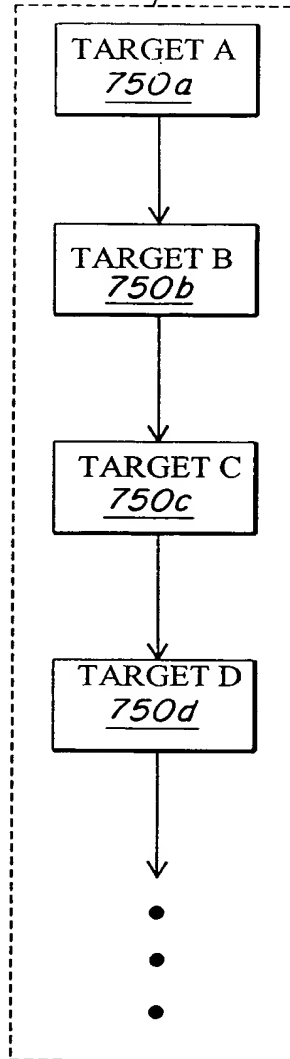


FIG. 26



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LANE 1 TARGETS, 750



LANE 2 TARGETS, 752

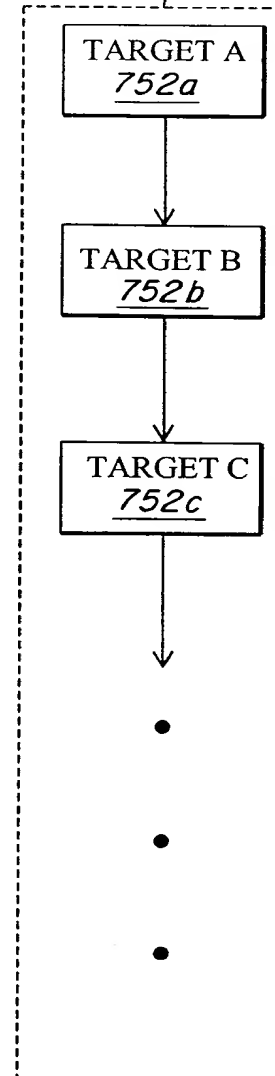
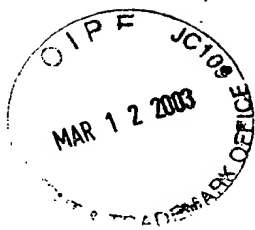


FIG. 27



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TARGET VEHICLE PREDICTION HISTORY

NEXT	760
TARGET ID	761
CAMERA	762
LANE	763
PAST PREDICTIONS	764
PAST STOP LINE ON YELLOW	765
PREDICTION STATE	766
FRAMES SINCE SEEN	767
SEEN THIS FRAME	768
PAST STOP LINE	769
PAST VIOLATION LINE	770
CAME TO STOP	771
RIGHT TURN COUNT	772
TOLD VIOLATION UNIT	773
REQUESTED PREEMPTION	774
SCORE	775
HIGHEST SCORE	776
TIME ELAPSED IN RED AT STOP LINE	777
DISTANCE TO VIOLATION LINE	778
DISTANCE TRAVELLED	779
VELOCITY AT STOP LINE	780
CURRENT VELOCITY	781
CURRENT ACCELERATION	782
DISTANCE TO STOP LINE	783
FIRST POSITION	784
LAST POSITION	785

FIG. 28



PREDICTION UNIT GLOBAL DATA		800
STOP LINES FOR EACH LANE		801
VIOLATION LINES FOR EACH LANE		802
LIGHT PHASE FOR EACH LANE		803
FIRST RED FRAME FOR EACH LANE		804
TIME LEFT IN YELLOW FOR EACH LANE		805
TIME ELAPSED IN RED FOR EACH LANE		806
GRACE PERIOD		807
MINIMUM VIOLATION SCORE		808
MINIMUM VIOLATION SPEED		809
VEHICLE IN LANE HAS STOPPED		810
• • •		

FIG. 29

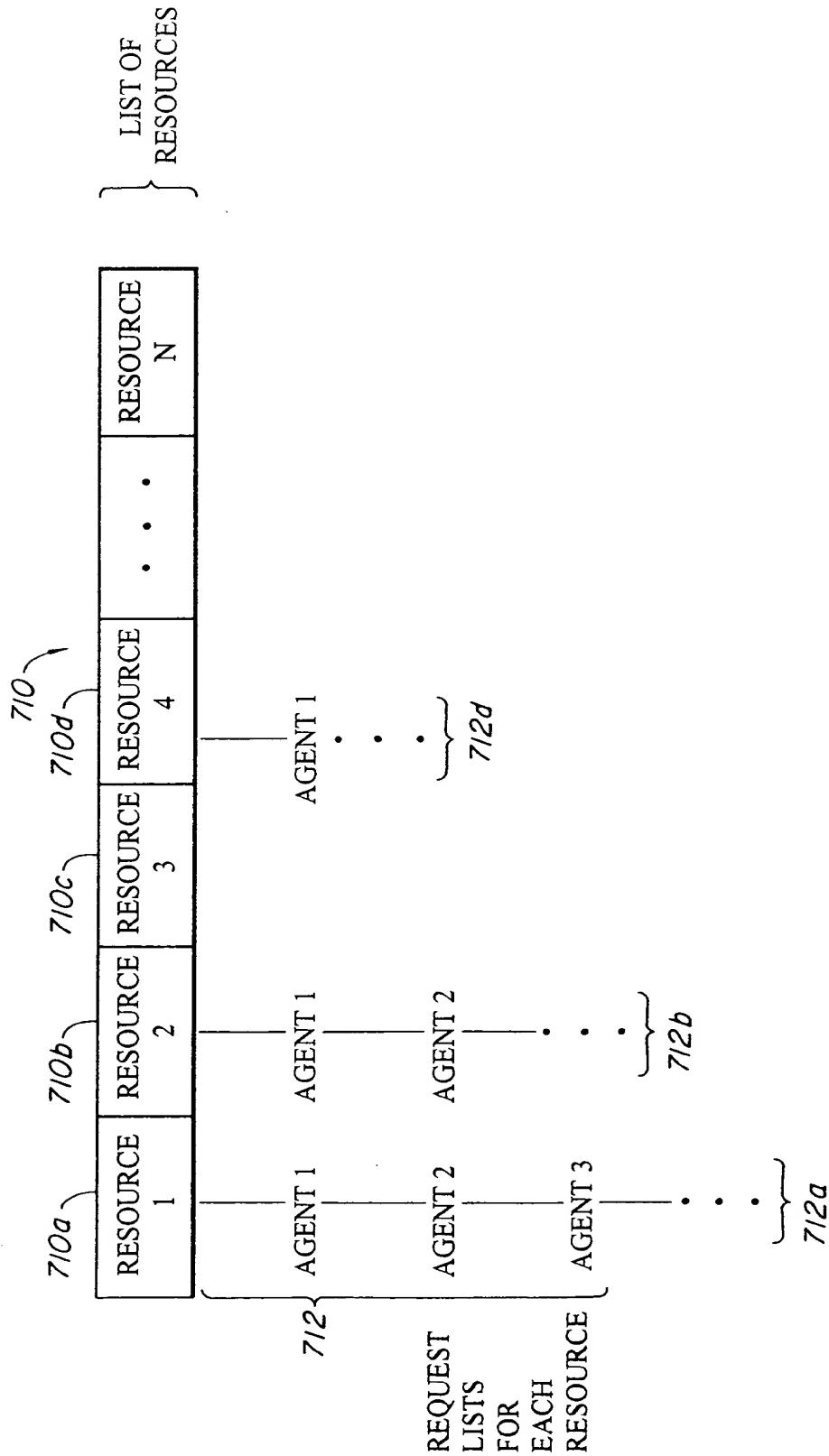


FIG. 30



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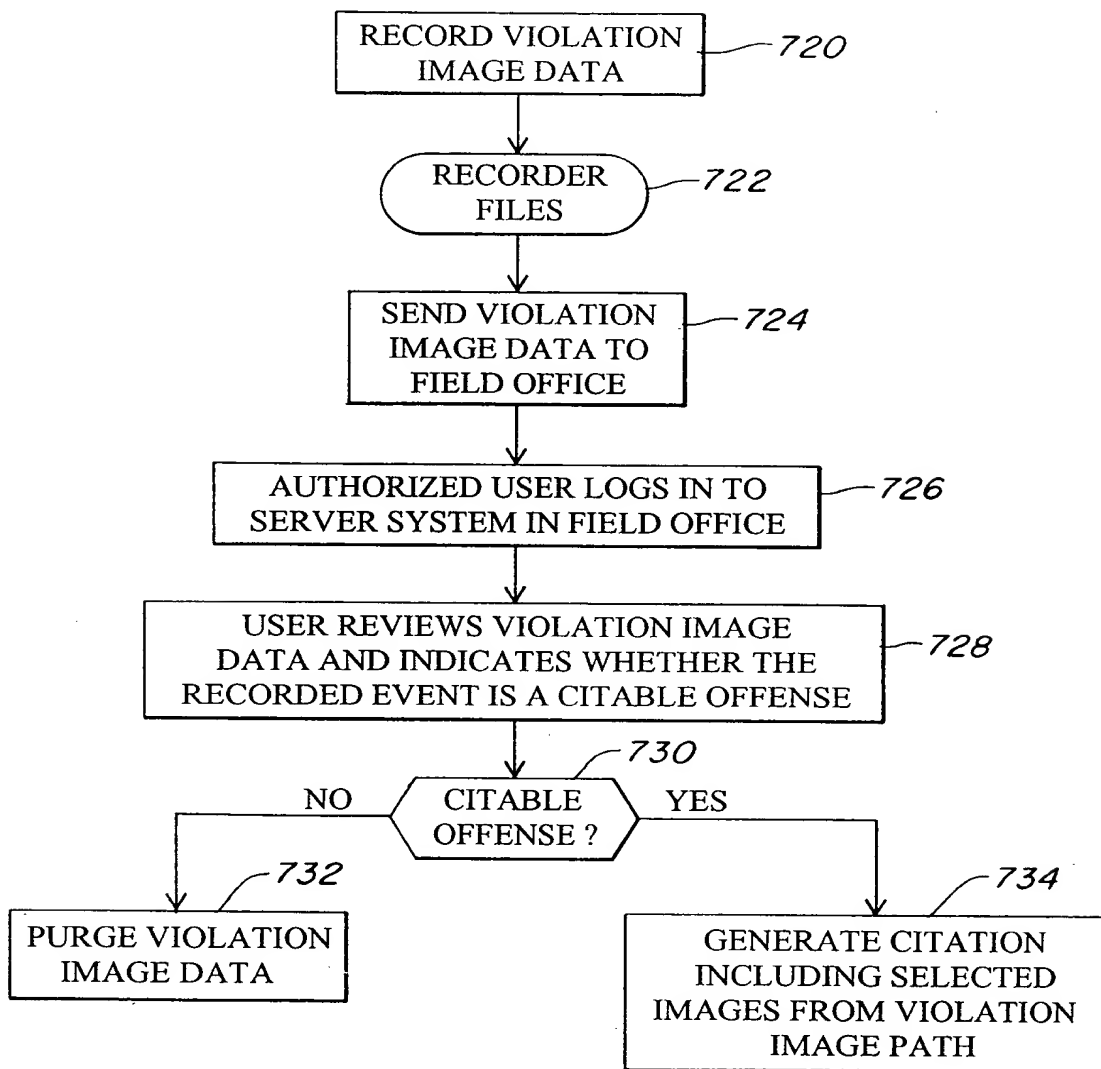


FIG. 31

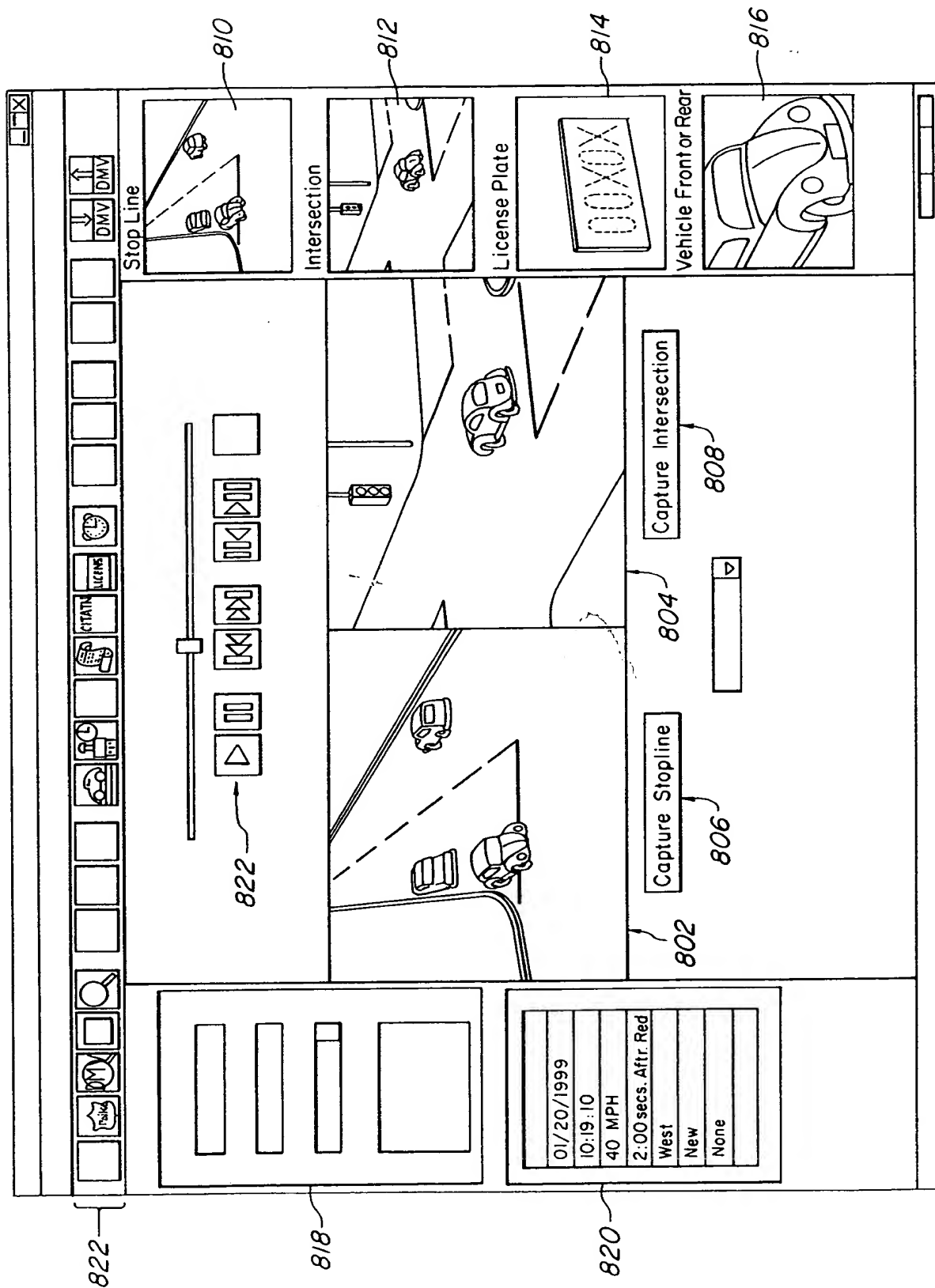


FIG. 32



RED LIGHT TRAFFIC CAMERA NOTICE OF VIOLATION			
Citation Number		902	
REGISTERED OWNER INFORMATION:			
VIOLATOR ADDRESS		904	
		906	
		Citation Information	
		MAILING DATE: _____	
		PAYMENT DUE DATE: _____	
		AMOUNT DUE >> _____	
		VIDEO of this offense is available for review at the Police Dept. by appointment only. _____	
		viewing the video from your citation, please call _____	
Violation Images and Vehicle Registration Information			
VEHICLE TAG	000000	LOCATION OF OFFENSE:	914
STATE TYPE	YEAR	DATE/TIME OF OFFENSE:	
MAKE	EXPIRATION DATE	ISSUING OFFICER:	
910	912	VEHICLE CROSSED STOP LINE SECONDS AFTER SIGNAL TURNED RED	
		VEHICLE SPEED _____ MPH	916
918		920	
Please return this portion with your payment-Use the enclosed envelope			
Citation Number		902	
		AMOUNT DUE >> S	
TOWN OR POLICE DEPT. ADDRESS		VIOLATOR ADDRESS	
924		922	

900

FIG. 33

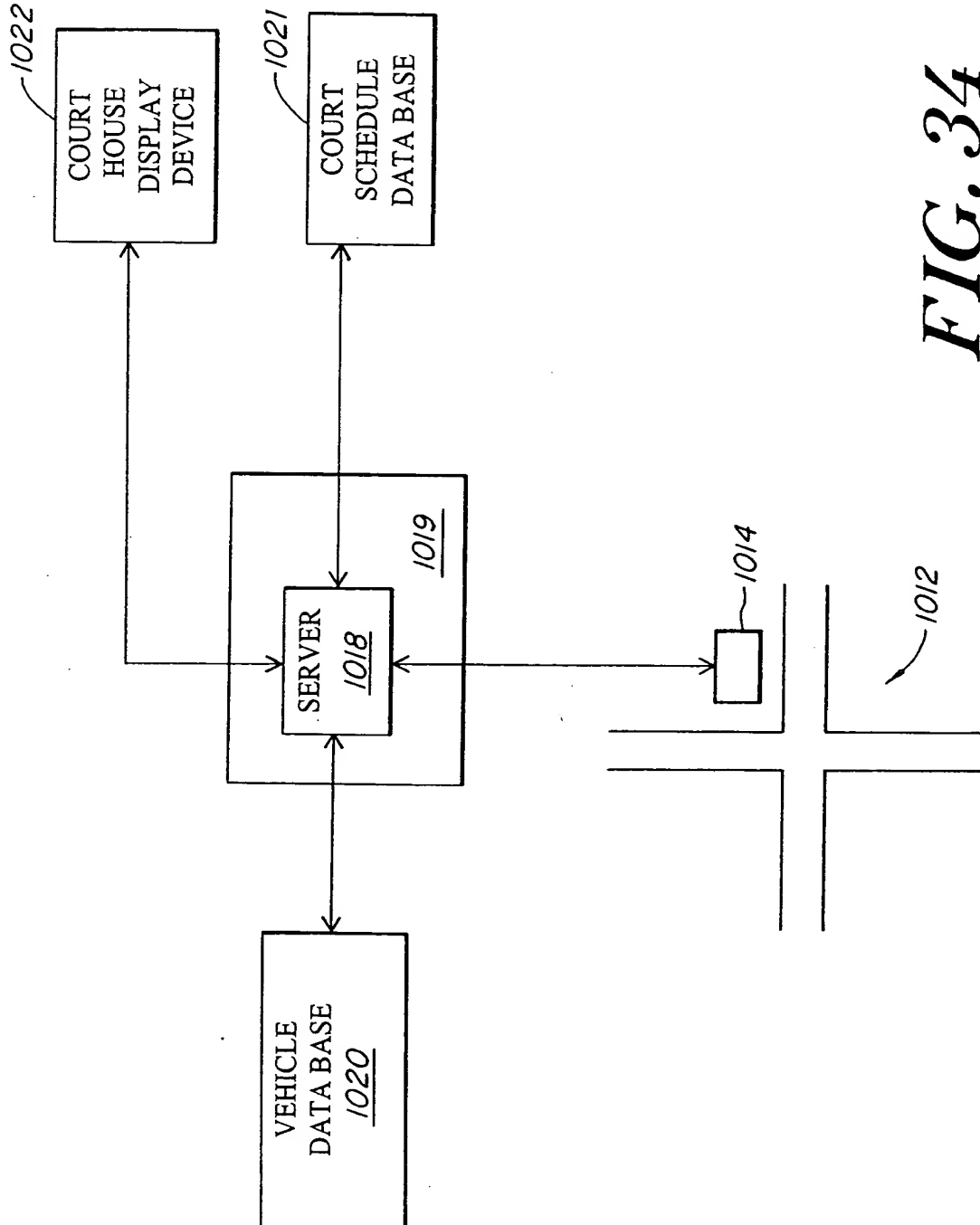


FIG. 34